








Perceived overqualification and task performance: Reconciling two opposing pathways

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In this study, we predict that higher levels of relative deprivation and higher levels of task mastery constitute two pathways through which perceived overqualification (POQ) has indirect and opposing effects on task performance. Further, we predict that occupational instrumentality, the degree to which the individual regards their job as a stepping stone to future career opportunities, will serve as a moderator for both pathways. Across two studies, as well as a supplementary study, we found evidence that POQ is positively associated with followers' perceptions of both task mastery and relative deprivation. In both studies, we also found consistent evidence for a positive indirect effect between POQ and task performance via perceptions of task mastery. This indirect relationship was observed for both self-rated (Studies 1 and 2) and manager-rated task performance (Study 2). Further, occupational instrumentality mitigated the positive relationship between POQ and relative deprivation. Overall, the results suggest that POQ–task performance relationship is a function of dual pathways that work in opposing directions and that the ability to see the job as a stepping stone is instrumental in determining the strength of these pathways.

Practitioner points

- Our findings suggest that when employees feel overqualified for their jobs, it can have both positive and negative effects on their level of task performance. On the one hand, when employees feel they are overqualified they may feel resentment and demotivation at work. On the other hand, such employees are also more likely to master the skills needed to perform their jobs at a high level.
- The demotivating effects of perceived overqualification on task performance depend on the degree to which employees regard their jobs as a stepping stone to future career opportunities.

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- Organizations or managers of employees who feel overqualified should consider ways to highlight how their job connects to future career opportunities and offers advancement potential.

A worldwide economic downturn and slow job markets have resulted in a rising number of employees who have levels of education, skills, and experience that exceed the demands of their jobs (Erdogan, Bauer, Peiró, & Truxillo, 2011a, 2011b). As a result, perceptions of overqualification (POQ), or the perception that one is employed in a job that requires less education, experience, and abilities than one possesses (Johnson & Johnson, 2000), are increasingly common among employees (McKee-Ryan & Harvey, 2011).

Research has found that POQ is negatively associated with job attitudes, including organizational commitment and job satisfaction, as well as positively relating to behaviours such as counterproductive work behaviours (Harari, Manapragada, & Viswesvaran, 2017). However, a similar consensus is currently lacking with respect to the relationship between POQ and task performance – the proficiency with which employees carry out the core requirements on the job (van Dijk, Shantz, & Alfes, 2020; Harari *et al.*, 2017). Understanding the effect of POQ on task performance is pivotal, as overqualified employees may hold excess qualifications and therefore any detrimental impact on their task performance is a missed opportunity to harness their potential. Moreover, given the fundamental role of task performance in relation to an organization's technical core, clarity is needed in understanding the impact of POQ on such performance (van Dijk *et al.*, 2020; Harari *et al.*, 2017).

A close examination of the literature suggests that researchers have proposed two alternative and opposing theoretical perspectives to explain the relationship between POQ and task performance (Erdogan, Bauer, & Karaeminogullari, 2017; Harari *et al.*, 2017; Wu, Tian, Luksyte, & Spitzmueller, 2017). On the one hand, the *ability-based* explanation views POQ as an advantage. This is because individuals with superior capabilities exceeding job requirements should be able to master their jobs and respond to job demands more easily and quickly. Employees who feel overqualified have the prerequisite skills for being a high performer such as education (Ng & Feldman, 2009) and cognitive ability (Benedek, Jauk, Sommer, Arendasy, & Neubauer, 2014). In contrast, the *motivation-based* explanation suggests that, even though they have the qualifications to perform well, overqualification may have negative effects on task performance due to its negative effects on motivation.

In this study, we propose that the null effects observed in the literature relating to the POQ–task performance relationship (Harari *et al.*, 2017) may be due to the presence of these two alternative and opposing forces working against each other. In other words, POQ has the potential to have both positive effects on task performance via higher task mastery and negative effects through higher levels of relative deprivation. Task mastery captures the extent to which individuals believe they have mastered the skills required to complete their tasks (Morrison, 1993), whereas relative deprivation is the feeling that one deserves and is entitled to a better job (Feldman, Leana, & Bolino, 2002). Responding to recent calls stating that the 'POQ-task performance relationship has to be rethought' (Harari *et al.*, 2017, p. 40) and the call for researchers to consider when the bright side of POQ is more likely to become manifest (van Dijk *et al.*, 2020), we develop a dual pathway model simultaneously examining both positive and negative effects of POQ on task performance. Consistent with the idea that ability and motivation have additive effects on performance (Van Iddekinge, Aguinis, Mackey, & DeOrtentiis, 2018), we treat task mastery and relative deprivation as two pathways linking POQ and task performance.

In addition to jointly examining the underlying and opposing mechanisms that may help explain the relationship between POQ and task performance, we aim to identify a key condition under which each indirect effect becomes stronger. Occupational instrumentality refers to the perception that one's job is a stepping stone to future career opportunities (Ashforth *et al.*, 2013). In the overqualification literature, researchers have theoretically recognized that, even though employees typically avoid jobs where they could be overqualified, they may take a job for which they are overqualified if they see it as a stepping stone to a better job (Sicherman & Galor, 1990). We propose that the degree to which individuals perceive that their current job is instrumental in furthering their long-term career goals will serve as a boundary condition of the effects of POQ. The perception that their current job is an important step towards a successful career (as opposed to a dead-end job that wastes their talents) should encourage employees to give their best to their current jobs, accentuating the positive effects on task performance via task mastery, and mitigating the negative effects via relative deprivation.

Our study makes three important contributions to the literature. First, as noted by Liu, Luksyte, Zhou, Shi, and Wang (2015), theory-based examinations unpacking when, how, and why overqualified employees engage in certain work behaviours are rare. This lack of attention means that our theoretical understanding of how and when POQ impacts task performance is lacking. Exploring why and when POQ is linked to task performance is an important contribution, because among all the outcomes of POQ, task performance has been prone to the most controversial and conflicting findings (Harari *et al.*, 2017). We conceptualize two opposing mechanisms that offer different theoretical explanations for the relationship between POQ and task performance. This approach distinguishes our research from other research in this area that has focused on one or the other mechanism. By systematically exploring two theory-driven mechanisms jointly operating in opposing directions, our study aims to provide an explanation for the weak and inconsistent findings that exist in the literature. The opposing signs of the proposed mediators mean that it is possible to conclude null effects even though the relationship is in fact more nuanced.

Second, we contribute to the literature through our focus on occupational instrumentality as a moderator. As noted by Harari *et al.*'s (2017) review of the POQ literature, further research is needed to develop an understanding of which situational characteristics might attenuate the motivational decrements experienced by overqualified workers. In doing so, we aim to learn when motivation-based and ability-based theories can explain the effects of POQ. Extending the rationale from relative deprivation theory suggesting that hope regarding the future should be an important contingency in examinations of deprivation and the arising resentment (Martin, 1981; Olson & Ross, 1984), and based on prior predictions of overqualification researchers (Erdogan *et al.*, 2011a, 2011b), we examine the moderating role of occupational instrumentality in strengthening the positive and weakening the negative indirect effects of POQ on task performance. Our examination of occupational instrumentality introduces the idea that not all jobs are equal when it comes to how employees react to feelings of overqualification, and it suggests that overqualified employees behave differently in jobs they see as instrumental to their careers as opposed to a job with limited career prospects.

Finally, we contribute to the burgeoning literature examining occupational instrumentality. Research in this area to date has largely explored if certain types of work, such as temporary work, can be a stepping stone to permanent employment or future success (e.g., De Cuyper, Notelaers, & De Witte, 2009). In the current research, we add to the

nomological network of occupational instrumentality by examining its interaction with POQ and its implications for task performance. Our investigation will provide insights into how occupational instrumentality may serve a buffering role towards adverse employment circumstances and serve to motivate employees to perform at a high level.

Relative deprivation and task mastery as mediators of POQ

Overqualification can be differentiated into objective overqualification (e.g., years of work experience an individual has compared to the years of work experience required for a job) and employees' perceptions of overqualification. We focus on the individual's subjective experience of being overqualified, as it is regarded as being more representative of the complexities involved in experiencing overqualification and more likely to provide a meaningful prediction of job attitudes and behaviours (Erdogan *et al.*, 2011a).

The relationship between POQ and task performance remains inconclusive, with Harari *et al.*'s (2017) meta-analysis reporting a non-significant correlation, with confidence intervals ranging between $-.06$ and $.14$ based on eight studies. Thus, while some studies found a negative relationship (Bolino & Feldman, 2000), others showed a positive relationship (Erdogan & Bauer, 2009; Fine & Nevo, 2008; Holtom, Lee, & Tidd, 2002), a non-significant relationship (Lobene & Meade, 2013), or a conditional relationship (Deng, Guan, Wu, Erdogan, Bauer, & Yao, 2018; Hu, Erdogan, Bauer, Jiang, Liu, & Li, 2015; Zheng & Wang, 2017). As Harari *et al.* (2017) recognized, 'overqualified workers may possess the ability to perform exceptionally well but may lack the motivation' (p. 31). Therefore, understanding the effects of overqualification necessitates jointly considering these competing forces that are likely to have different effects on performance.

Erdogan *et al.* (2017) highlighted that the most commonly used theory to explain the detrimental effects of overqualification is relative deprivation theory (e.g., Crosby, 1976; Feldman *et al.*, 2002), which provides an explanation for why employees who feel overqualified may be disinclined to perform well. Relative deprivation theory focuses on individuals' sense of injustice with situational conditions. Stouffer, Suchman, DeVinney, Star and Williams (1949) first introduced the term 'relative deprivation' to explain why levels of satisfaction among soldiers did not consistently match objective job conditions. They found that job attitudes were influenced by how objective job conditions match up to what individuals desire and feel entitled to receive from their jobs. Relative deprivation refers to the judgement that one is worse off compared to some standard and is accompanied by feelings of anger and resentment (Smith, Pettigrew, Pippin, & Bialosiewicz, 2012). Relative deprivation theory has many similarities with equity theory (e.g., Adams & Freedman, 1976). A commonly used motivational theory (see Bolino & Turnley, 2008), equity theory proposes that individuals compare ratios of their own outcomes and inputs to the ratios of outcomes and inputs of others. According to this theory, if these ratios are perceived to be unequal, individuals are motivated to take actions that will re-establish equity. While both theories are relevant to the understanding of POQ, relative deprivation may be a particularly appropriate approach to examining POQ because, whereas equity theory examines employees comparisons with specific referents, relative deprivation theory focuses on the overall sense that one is deprived of the job they are entitled to have (Feldman *et al.*, 2002).

POQ is likely to produce feelings of relative deprivation, because individuals with higher qualifications are also likely to have higher expectations about the type of job they deserve to occupy (Vaisey, 2006). If employees find themselves in a job that they see as

beneath what their qualifications warrant, they experience a sense of deprivation (Erdogan & Bauer, 2009). According to the theory, the greater the discrepancy between present job conditions and desired job conditions (that is, the greater the relative deprivation), the less motivated employees will be (Feldman *et al.*, 2002). As such, although people who feel overqualified may have enough (and even more) capacities to perform well, perceptions of relative deprivation may lead them to lack motivation. While research has often invoked relative deprivation theory to explain the effects of overqualification (e.g., Hu *et al.*, 2015), relatively few studies have explicitly tested this mechanism in an empirical setting. An exception is a recent study which found that POQ predicted relative deprivation, which in turn was related to lower career satisfaction, positive affect, and life satisfaction (Erdogan *et al.*, 2018). In the current research, we predict that feelings of relative deprivation will mediate the relationship between POQ and task performance. From a motivational perspective, because they feel under-rewarded, employees experiencing relative deprivation will reduce their level of task performance (Feldman & Turnley, 2004). That is, employees high in POQ may be less willing to put forth their best effort when completing the duties that have been assigned to them (Williams & Anderson, 1991). In line with this, previous research has found relative deprivation to be negatively associated with task performance (e.g., Feldman & Turnley, 2004) and positively associated with a reduction in work effort (Dai, Chen, & Zhuang, 2016). Thus, from a motivational perspective, we propose:

Hypothesis 1: Perceived overqualification is indirectly and negatively related to task performance through perceptions of relative deprivation.

According to a second, ability-based perspective, POQ is expected to have positive effects on task performance. The primary reason proposed for the potential positive effects is that employees who feel overqualified have the skills needed to do their jobs (Bashshur, Hernandez, & Peiró, 2011). This ability-based perspective suggests that employees who have more skills and abilities than required for a job should be able to perform more effectively because they have enough (and perhaps surplus) capacities to learn new tasks, technologies, and procedures (Wu *et al.*, 2017). Thus, in contrast to a motivation-based perspective, this ability-based approach explains the positive effects of POQ by viewing overqualification as the availability of, and self-assessments relating to, excess skills and qualifications. From this perspective, POQ captures employee ownership of superior skills and qualifications and relatedly one's positive self-assessments.

Supporting this rationale, several studies have reported a positive relation between POQ and task performance (e.g., Erdogan & Bauer, 2009; Fine & Nevo, 2008). A key mechanism that can explain these positive effects is task mastery. Task mastery represents positive beliefs about one's competence to perform job tasks. One of the most important tasks facing employees is learning how to perform their jobs (e.g., Feldman, 1981). A lack of task mastery is a strong indicator of not being able to fulfil the demands of the occupation, which will ultimately lead to alienation from that occupation (Hauschildt & Heinemann, 2013). Thus, employee overqualification should result in the perception that they have mastered the skills needed to perform well in their job. In other words, because POQ reflects the perception that employees have surplus capacity for carrying out their job-related activities, these employees should hold 'a positive view of their job competence' (Zhang, Law, & Lin, 2016, p. 62). Scholars embracing this viewpoint have suggested that overqualified employees may be more able to exceed expectations in their

role, to work more independently, require less training, and can provide a company with valuable talent for future higher-level jobs (Erdogan *et al.*, 2011a).

Like task-specific self-efficacy, task mastery represents a malleable belief in one's ability to perform to a high standard on a given task. Mastery reflects confidence derived from accumulated experiences and individuals' belief in their capability to complete assigned tasks, which in turn benefits their productivity and efficiency (Karasek & Theorell, 1990; Phillips & Gully, 1997). Previous research has suggested that employees' perception of task mastery represents an important aspect of employees' organizational assimilation that provides confidence and leads to outcomes such as task performance (Saks & Ashforth, 1997; Song & Chathoth, 2013). Research also suggests that state-like individual differences such that task mastery (or task-specific self-efficacy) are important mechanisms through which individual differences relate to task performance (e.g., Chen, Gully, Whiteman, & Kilcullen, 2000). Hence:

Hypothesis 2: Perceived overqualification will be indirectly and positively related to task performance through feelings of task mastery.

Occupational instrumentality as a moderator

Even though the overall relationship between overqualification and task performance reported in the Harari *et al.* (2017) meta-analysis is not significant, it covers a range of positive and negative relationships. The inconsistency of this relationship highlights the importance of identifying theoretically relevant variables that might serve as moderators (e.g., Liu *et al.*, 2015). We propose that the positive effects of overqualification on outcomes are stronger and negative effects are weaker relative to the degree to which individuals regard their current job as a stepping stone to future career opportunities (Ashforth *et al.*, 2013). This 'occupational instrumentality' reflects the fact that one's current job is instrumental in fulfilling future career goals. For example, one's current job might be viewed as a stepping stone for a better job or as a way to transition to a different industry or vocational field. According to Vroom's (1964) expectancy theory, individuals who view their current jobs as a step towards a better job are likely to be highly motivated. Therefore, overqualified individuals are likely to take a long-term perspective to evaluating and reacting to their jobs.

Sicherman's (1991) career mobility theory is the first to suggest the idea that viewing one's job as a stepping stone may shape overqualified employees' reactions to their jobs. According to this theory, workers may take jobs for which they are overeducated in order to obtain the work experience and training needed for progression to higher-level positions (Bukodi & Dex, 2009; Sicherman & Galor, 1990). While such jobs are seen as a short-term mismatch, they are perceived to be beneficial for the subsequent upward mobility of the individual and therefore employees are expected to experience less negative attitudes and emotions in these jobs. Elaborating on this idea while discussing the issue of youth overqualification, Peiró, Hernández and Ramos (2015, p. 98) posited that the experience of overqualification 'can be completely different, depending on whether the situation is perceived as a stepping stone to get a better job'. Similarly, discussing the positive relation between POQ and relative deprivation, Erdogan *et al.* (2018) proposed that POQ could be less problematic for individuals who regard their jobs as a reliable stepping stone to a better job in the future. However, this proposition has yet to be tested empirically.

According to relative deprivation theory, individuals compare their current work situation to the work situation they feel they deserve. Such a comparison may be based on one's own past, some ideal or expectation for the future, another person or group, or some other social category (Walker & Pettigrew, 1984). The theory posits that individuals may also evaluate the fairness of their current situations in terms of their expectations for the future (Crosby, 1976, 1984). In the context of POQ, we examine whether relative deprivation is lower among employees who perceive their current job is a stepping stone for later career success. Individuals who see their job in this way should, theoretically, be less likely to perceive relative deprivation. These individuals may perceive that the experience they are gaining in their current positions make up for overqualification that they are currently perceiving.

Relative deprivation captures frustrated expectations (Johnson & Johnson, 2000), but for employees who see their jobs as instrumental to their long-term goals, POQ should be less frustrating. In this case, we argue that employees may have positive future expectations, attenuating the relative deprivation that might otherwise be experienced. Indeed, the extant literature demonstrates that limited chances for the future attainment of desirable roles or frustrated beliefs about the improvement of an unfavourable situation may create lowered morale among employees (Aquino, Griffeth, Allen, & Hom, 1997). In this way, low levels of occupational instrumentality will likely exacerbate the relative deprivation felt by employees high in POQ. Conversely, evidence suggests that, when individuals perceive their jobs as instrumental in facilitating their goals, they will generate positive attitudes regarding their environment (Xie, Zhou, Huang, & Xia, 2017). Experimental studies have demonstrated that, when individuals progressed towards their goals, they were more positive towards instrumental environments (Fitzsimons & Shah, 2008). Based on this rationale, we propose the following:

Hypothesis 3: Occupational instrumentality will moderate the first stage of the mediated relationship between perceived overqualification and task performance, such that the negative indirect effects through relative deprivation will be stronger when occupational instrumentality is low.

While we expect overqualification to have positive effects on task mastery due to the higher levels of skills and abilities of these employees, we argue that such individuals will have greater incentive to try to learn and master their jobs when they perceive occupational instrumentality. Researchers have often suggested that valued, distant (future) goals are central to current action (e.g., Husman & Lens, 1999; Lens, 2001; Lens, Simons, & Dewitte, 2002; Markus & Nurius, 1986; Nuttin, 1984). Relatedly, research also shows that people in pursuit of important goals invest in those aspects of their environment that they perceive as most instrumental for achieving their desired outcome (Labroo & Kim, 2009). Perceiving current tasks as instrumental for obtaining future goals has been associated with increased mastery orientation (Simons, Dewitte, & Lens, 2000) and achievement (Malka & Covington, 2005; Ozcetin & Eren, 2010; Peteranetz, Flanigan, Shell, & Soh, 2018). For instance, writing about part-time workers interested in full-time work, Bashshur *et al.* (2011) noted that individuals may see their situation as akin to an audition and an opportunity to signal their value. As a result, they may put in more effort and demonstrate higher productivity at work.

In the current research, we argue that because occupational instrumentality will increase the value of one's current job for future desirable outcomes, it will serve as a motivator for overqualified employees to put their skills and abilities to good use.

Overqualified employees who do not take a long-term perspective (i.e., low occupational instrumentality) are likely to view their mismatched job situation more negatively. In this case, they do not have a compelling reason and drive towards mastery of tasks, because they feel undervalued. In contrast, when overqualified employees view their jobs to be stepping stones, they are more likely to approach the same situation with an attitude in which their focus is on the need to develop competencies and mastery of task for future job opportunities. Thus, the combination of POQ and occupational instrumentality should create the conditions whereby employees who perceive that they have the skills to do their job are more likely to maximize their skill utilization to master their tasks.

Combining our earlier prediction relating to the indirect relationship between POQ and task performance via task mastery, we expect that occupational instrumentality will increase the efforts of overqualified employees to learn and master their jobs even further, resulting in positive indirect effects on performance. Thus, we propose:

Hypothesis 4: Occupational instrumentality will moderate the first stage of the mediated relationship between POQ and task performance, such that the positive indirect effects through task mastery will be stronger when occupational instrumentality is high.

Overview of studies

To test our hypotheses, we conducted two studies as well as a supplementary study (see Appendix S1). In Studies 1 and 2, we measured employees' perceptions of overqualification, occupational instrumentality, task mastery, and relative deprivation. In Study 1, we used self-ratings of task performance, while in Study 2, in addition to self-ratings, we were also able to obtain ratings of task performance from employees' immediate managers. Our supplementary study further explores the directionality of relationships between POQ and the mediators through utilizing a two-wave panel design (see Appendix S1 for details).

STUDY 1

Sample and procedures

The sample included 521 participants who were recruited using a Qualtrics Panel. All respondents were over the age of 18 and lived in the United States. They were invited to participate in the study in exchange for cash or gift cards. To qualify for the sample, individuals were required to be full-time working adults. Exactly 50% of the sample was female, and the average age of respondents was 40 years. Questionnaires were completed online. Attentional filters were included to ensure that the participants were paying attention when completing the survey.

Measures

Participants were asked to rate each scale item using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Perceived overqualification (POQ)

POQ was measured using the four-item scale developed by Johnson and Johnson (1996). A sample item is, 'My formal education overqualifies me for my present job' ($\alpha = .71$).

Occupational instrumentality

We measured occupational instrumentality using the three-item scale developed by Ashforth *et al.* (2013). A sample item is 'I view my current job as a stepping stone to other jobs' ($\alpha = .86$).

Relative deprivation

Relative deprivation was measured using the three items used by Feldman and Turnley (2004). A sample item is 'Generally speaking, I want a better job situation than the one I have now' ($\alpha = .86$).

Task mastery

Task mastery was assessed with four items developed by Morrison (1993). A sample item is 'I feel competent conducting my job assignments' ($\alpha = .71$).

Task performance

Task performance was self-reported by participants using the seven-item scale developed by Williams and Anderson (1991). A sample item is 'I meet the formal performance requirements of my job' ($\alpha = .71$).

Control variables

We controlled for gender and age in order to eliminate alternative explanations for our findings. Previous research shows that men and women may be rated differently in their task performance due to potential gender bias, and individuals' age may also influence judgements of performance (Greenhaus & Parasuraman, 1993; Ng & Feldman, 2008; Roth, Purvis, & Bobko, 2012). Following Becker's (2005) recommendations, we repeated all hypothesis tests both with and without the control variables to ensure that results remained largely unchanged, thus supporting the robustness of the findings.

Results

Table 1 presents the means, standard deviations, and zero-order correlations among the study variables. In line with Hypotheses 1 and 2, POQ was significantly correlated with both relative deprivation ($r = .23, p < .001$) and task mastery ($r = .13, p = .003$). Feelings of relative deprivation ($r = -.19, p < .001$) and task mastery ($r = .46, p < .001$) were both significantly associated with self-rated task performance.

Before testing our hypotheses, we first sought to determine the discriminant validity of the variables used in Study 1 by conducting a series of confirmatory factor analyses (CFAs) using Mplus (version 7). The results of these analyses are displayed in Table 2.

The goodness-of-fit indicators of a five-factor model, which incorporated all of the rated variables (POQ, occupational instrumentality, relative deprivation, task mastery, and task performance) as distinct latent factors ($\chi^2 = 491.19, df = 179, RMSEA = 0.06, CFI = 0.92$), were compared to a number of four-factor models in which these latent variables were combined (e.g., POQ and relative deprivation were combined into a single factor). As shown in Table 2, the five-factor model produced the best model fit and one

Table 1. Means, standard deviations, and intercorrelations among study variables

	Study 1		Study 2		1	2	3	4	5	6	7	8
	Mean	SD	Mean	SD								
1. Perceived Overqualification	3.39	.91	2.97	.82	—	—	.25**	.17*	—	.08	—	.04
2. Occ. Instrumentality	3.38	1.06	3.57	.69	.01	—	—	.03	.11	—	—	.07
3. Relative Deprivation	2.14	.91	2.41	.89	.23**	—	—	—	—	—	—	—
4. Task Mastery	4.05	.62	3.85	.71	.13*	—	—	—	—	—	—	—
5. Self-rated Task Performance	4.28	.52	4.13	.61	—	—	—	—	—	—	—	—
6. Manager-rated Task Performance (Study 2 only)	—	—	3.90	.52	—	—	—	—	—	—	—	—
7. Gender	0.50	.50	.43	.50	—	—	—	—	—	—	—	—
8. Age	40.42	15.63	30.12	4.65	—	—	—	—	—	—	—	—

Notes. Study 1: $n = 521$. Study 2: $n = 203$; gender was coded as 0 = male 1 = female.

Occ. Instrumentality = Occupational Instrumentality.

Study 1 correlations are reported below the diagonal, and Study 2 correlations are reported above the diagonal.

* $p < .05$; ** $p < .01$.

Table 2. Confirmatory factor analysis results for Study 1

Model	χ^2	df	CFI	RMSEA	χ^2 difference test ^a
Five-factor model	491.19	179	.92	.06	
Four-factor model ¹	864.30	183	.83	.08	373.11 (4)**
Four-factor model ²	1,163.58	183	.76	.10	672.39 (4)**
Four-factor model ³	1,265.55	183	.73	.11	774.36 (4)**
Four-factor model ⁴	1,649.67	183	.64	.12	1158.48 (4)**
Four-factor model ⁵	1,163.18	183	.76	.10	671.99 (4)**
Four-factor model ⁶	1,200.41	183	.75	.10	709.22 (4)**
Four-factor model ⁷	1,562.06	183	.66	.12	1,070.87 (4)**
Four-factor model ⁸	1,265.14	183	.73	.11	773.95 (4)**
Four-factor model ⁹	725.04	183	.87	.08	233.85 (4)**
Four-factor model ¹⁰	1,267.30	183	.73	.11	776.11 (4)**

Notes. CFI, comparative fit index; df, degrees of freedom; RMSEA, root-mean-square error of approximation. a – Chi-squared difference test comparing chi-square test of model fit to baseline model (five-factor model).

Four-factor model¹ combines POQ and Relative Deprivation.

Four-factor model² combines POQ and Task Mastery.

Four-factor model³ combines POQ and Occupational Instrumentality.

Four-factor model⁴ combines POQ and Task Performance.

Four-factor model⁵ combines Relative Deprivation and Task Mastery.

Four-factor model⁶ combines Relative Deprivation and Occupational Instrumentality.

Four-factor model⁷ combines Relative Deprivation and Task Performance.

Four-factor model⁸ combines Task Mastery and Occupational Instrumentality.

Four-factor model⁹ combines Task Mastery and Task Performance.

Four-factor model¹⁰ combines Occupational Instrumentality and Task Performance.

** $p < .01$.

that was significantly better than any of the models where latent variables were combined. This was determined using chi-square difference tests (also shown in Table 2).

Hypothesis testing

Hypotheses 1 and 2 predicted that relative deprivation and task mastery would mediate the relationship between POQ and task performance. To test this dual mediation model, we used Hayes' (2013) PROCESS macro (Model 4) for SPSS (version 23) to calculate bias-corrected bootstrapped confidence intervals (using 20,000 bootstrap samples) for indirect effects. Relative deprivation and task mastery were included as dual mediators in the model. The results of this analysis are shown in Table 3 and provide support for both Hypothesis 1 and Hypothesis 2, as POQ had a significant and positive association with task mastery ($\beta = .09$, $SE = .03$, $p = .003$) and relative deprivation ($\beta = .23$, $SE = .04$, $p < .001$). Both task mastery ($\beta = .33$, $SE = .03$, $p < .001$) and relative deprivation ($\beta = -.08$, $SE = .02$, $p < .001$) were significantly associated with task performance. A significant indirect effect of .03 was found between POQ and task performance via task mastery as the 95% confidence intervals (CI) did not include zero (LL = .007, UL = .056). A significant indirect effect of $-.02$ (95% CI: LL = $-.034$, UL = $-.008$) was also found with relative deprivation. POQ had no direct effect on task performance ($\beta = -.04$, $SE = .02$, $p = .079$), indicating that task mastery and relative deprivation fully mediated the POQ–performance link.

Table 3. Study 1 and Study 2 regression results

	Relative Deprivation						Task Mastery						Self-rated Task Performance						Manager-rated Task Performance					
	Study 1			Study 2			Study 1			Study 2			Study 1			Study 2			Study 1			Study 2		
	B	SE	t	B	SE	t	B	SE	t	B	SE	t	B	SE	t	B	SE	t	B	SE	t	B	SE	t
Step 1 – Control																								
Age	-.00	.00	-.63	.00	.01	.05	.01	.00	4.20**	.01	.01	.64	.01	.00	5.92**	.00	.01	.18	-.01	.01	-.67	-.01	.01	-.67
Gender	.18	.08	2.24*	-.15	.13	-1.20	.05	.06	.84	.09	.10	.86	.08	.04	1.85	-.08	.09	-.92	.14	.08	1.81	.14	.08	1.81
R ²	.01			.01			.04			.01			.07			.00			.02			.02		
Step 2 – Mediation																								
Age	-.00	.00	-.64	.00	.01	.00	.01	.00	4.24**	.01	.01	.54	.01	.00	4.43**	-.00	.01	-.22	-.01	.01	-.95	-.01	.01	-.95
Gender	.19	.07	2.44*	-.12	.12	-.98	.05	.06	.93	.11	.10	1.04	.08	.04	2.00*	-.16	.07	-2.33*	.11	.07	1.58	.11	.07	1.58
POQ	.23	.04	5.47**	.27	.07	3.65**	.09	.03	2.98**	.15	.06	2.44*	-.04	.02	-1.76	-.12	.04	-2.79**	.03	.05	.61	.03	.05	.61
Relative Deprivation													-.08	.02	-3.76**	-.11	.04	-2.79**	-.03	.04	-.72	-.03	.04	-.72
Task Mastery													.33	.03	10.98**	.52	.05	10.75**	.25	.05	4.84**	.25	.05	4.84**
R ²	.06			.07			.05			.04			.28			.43			.14			.14		
Step 3 – Moderated Mediation																								
Age	-.01	.00	-2.62**	.01	.01	.99	.01	.00	4.21**	.00	.01	.32	.01	.00	4.43**	-.00	.01	-.22	-.01	.01	-.95	-.01	.01	-.95
Gender	.17	.07	2.30*	-.25	.12	-2.13*	.06	.06	1.01	.12	.10	1.16	.08	.04	2.00*	-.16	.07	-2.32*	.11	.07	1.58	.11	.07	1.58
POQ	.23	.04	5.50**	.23	.07	3.46**	.10	.03	3.04**	.16	.06	2.64**	-.04	.02	-1.76	-.12	.04	-2.79**	.03	.04	.61	.03	.04	.61
Instrumentality	-.20	.04	-5.05**	-.44	.08	-5.31**	.03	.03	.94	.07	.08	.99												
POQ*Instrumentality	-.12	.04	-3.31**	-.36	.07	-4.92**	.03	.03	1.27	.14	.07	2.05*	-.08	.02	-3.76**	-.11	.04	-2.79**	-.03	.04	-.72	-.03	.04	-.72
Relative Deprivation													.33	.03	10.98**	.51	.05	10.75**	.24	.05	4.84**	.24	.05	4.84**
Task Mastery													.28			.43			.14			.14		
R ²	.13			.24			.06			.06			.28			.43			.14			.14		

Notes. Study 1: $n = 521$. Study 2: $n = 203$; gender was coded as 0 = male 1 = female. POQ is perceived overqualification.
 * $p < .05$; ** $p < .01$.

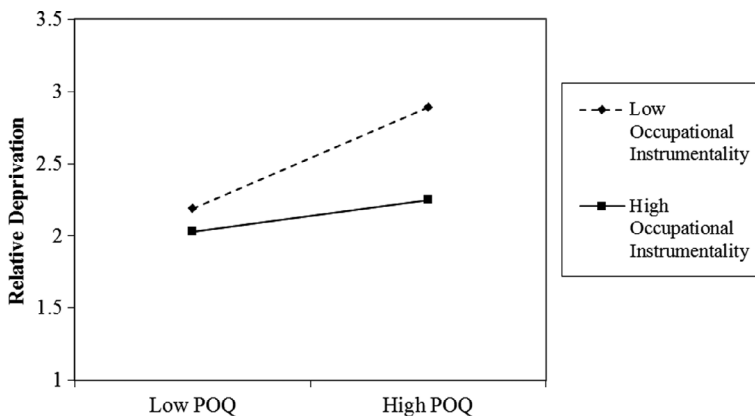


Figure 1. Occupational instrumentality as a moderator of the relationship between POQ and relative deprivation (Study 1).

Hypothesis 3 posited that occupational instrumentality would moderate the indirect effects of POQ on task performance via relative deprivation. To test this first-stage moderated mediation model, we again used Hayes' (2013) PROCESS macro (Model 7) to calculate conditional indirect effects (see Table 3). Both POQ and occupational instrumentality were mean-centred before this model was run. In support of Hypothesis 3, a significant interaction effect was found between POQ and occupational instrumentality on relative deprivation ($\beta = -.12$, $SE = .04$, $p = .001$). A non-significant indirect effect (95% CI: LL = $-.022$, UL = $.001$) was found at higher values of occupational instrumentality (one SD above the mean) with a significant indirect effect of $-.03$ (95% CI: LL = $-.049$, UL = $-.013$) found at lower values of occupational instrumentality (one SD below the mean). Hypothesis 3 was supported by a significant index of moderated mediation (.009; 95% CI: LL = $.003$, UL = $.019$). The conditional indirect effect of POQ on task performance via relative deprivation was significantly smaller in magnitude when occupational instrumentality was high. This interaction effect is displayed graphically in Figure 1. We did not find support for Hypothesis 4, as a non-significant interaction effect was found between POQ and occupational instrumentality on task mastery ($\beta = .03$, $SE = .03$, $p = .346$). Further, a non-significant index of moderated mediation was found via task mastery (.011; 95% CI: LL = $-.009$, UL = $.031$).

Discussion

In support of our expectations, we found that the non-significant relationship between POQ and task performance was due to the competing and opposing effects of POQ on task performance via feelings of relative deprivation and a sense of task mastery. Employees who were high in POQ were more likely to believe they had mastered the tasks associated with their jobs. Indeed, POQ was found to have a positive effect on self-ratings of task performance through task mastery. Conversely, we found that POQ was positively related to a sense of relative deprivation, and therefore, we found a negative indirect effect between POQ and task performance via relative deprivation. Finally, we found that the positive relationship between POQ and relative deprivation was attenuated by perceptions of occupational instrumentality. Study 1 was limited by the fact that we relied on a self-reported task performance. As all our variables were self-rated, common method

variance was a study limitation (Podsakoff *et al.*, 2012). Therefore, Study 2 builds on Study 1 by providing a replication of our theoretical model with an organizational sample that included both self-rated and manager-rated task performance as dependent variables. We also further explored the directionality of the relationship between POQ, task mastery, and relative deprivation in a supplementary study presented in Appendix S1.

STUDY 2

Sample and procedure

Our sample comprised of 203 manager–subordinate dyads who were all alumni of a business school located in East China. We posted the project introduction in the Alumni Forum and 318 alumni agreed to participate in the project. If the participant was a non-managerial employee, he or she was asked to first invite their direct supervisor and provide that manager's email address; if the participant was a manager, he or she was asked to invite their subordinates and provide their email addresses. Managers and subordinates were then sent a questionnaire using an online survey website, Wenjuanxing, the Chinese version of Qualtrics, and each questionnaire had a unique questionnaire ID automatically generated within Wenjuanxing. Subordinates provided responses to questions related to POQ, task mastery, relative deprivation, occupational instrumentality, and task performance. In addition to self-rating of performance, managers rated the task performance of their subordinate(s). Managers who had multiple subordinates to rate received separate invitation letters, with the subordinate email address provided as a reference.

After the initial invitation email, two rounds of reminders were sent via email two weeks and three weeks after the initial invitation. Data from 203 matched manager–subordinate dyads were received, representing a response rate of 70.2%. Every respondent in our final sample had a full-time job. 45.8% of the sampled subordinates were male, with an average age of 30.1 years. Subordinates had worked for their companies for around four years. In the manager sample, 57.1% of participants were male, with an average age of 36.5 years.

Measures

POQ ($\alpha = .81$), occupational instrumentality ($\alpha = .72$), relative deprivation ($\alpha = .94$), task mastery ($\alpha = .79$), and self-rated task performance ($\alpha = .84$) were all measured using the same scales as Study 1. Additionally, employees' task performance was also rated by their direct managers ($\alpha = .71$), in addition to being rated by employees themselves. For all scales in this study, participants rated each item using a 5-point Likert scale ranging between 1 = strongly disagree and 5 = strongly agree. As in Study 1, we repeated all hypothesis tests both with and without the control variables to ensure that results remained largely unchanged, thus supporting the robustness of the findings (Becker, 2005).

Results

Table 1 displays the means, standard deviations, reliabilities, and zero-order correlations among the Study 2 variables. As in Study 1, we found significant correlations between POQ and both task mastery ($r = .17, p = .018$) and relative deprivation ($r = .26, p < .001$). Task mastery was also significantly associated with both self-rated ($r = .57, p < .001$) and manager-rated task performance ($r = .36, p < .001$). Relative deprivation was

Table 4. Confirmatory factor analysis results for Study 2

Model	χ^2	df	CFI	RMSEA	χ^2 difference test ^a
Six-factor model	544.81	335	.91	.05	
Five-factor model ¹	802.08	340	.79	.08	257.27**
Five-factor model ²	885.08	340	.76	.09	340.27**
Five-factor model ³	676.45	340	.85	.07	131.64**
Five-factor model ⁴	1,119.59	340	.65	.11	574.78**
Five-factor model ⁵	768.61	340	.81	.08	223.80**
Five-factor model ⁶	886.82	340	.75	.09	342.01**
Five-factor model ⁷	650.49	340	.86	.07	105.68**
Five-factor model ⁸	1,037.15	340	.69	.10	492.34**
Five-factor model ⁹	762.86	340	.81	.08	218.05**
Five-factor model ¹⁰	681.47	340	.85	.07	136.66**
Five-factor model ¹¹	650.85	340	.86	.07	106.04**
Five-factor model ¹²	681.83	340	.85	.07	137.02**
Five-factor model ¹³	671.73	340	.85	.07	126.92**
Five-factor model ¹⁴	773.09	340	.81	.08	228.28**

Notes. CFI, comparative fit index; df, degrees of freedom; RMSEA, root-mean-square error of approximation. a – Chi-squared difference test comparing chi-square test of model fit to baseline model (five-factor model).

Five-factor model¹ combines POQ and Relative Deprivation.

Five-factor model² combines POQ and Task Mastery.

Five-factor model³ combines POQ and Occupational Instrumentality.

Five-factor model⁴ combines POQ and Self-Rated Task Performance

Five-factor model⁵ combines POQ and Manager-Rated Task Performance

Five-factor model⁶ combines Relative Deprivation and Task Mastery.

Five-factor model⁷ combines Relative Deprivation and Occupational Instrumentality.

Five-factor model⁸ combines Relative Deprivation and Self-Rated Task Performance.

Five-factor model⁹ combines Relative Deprivation and Manager-Rated Task Performance.

Five-factor model¹⁰ combines Task Mastery and Occupational Instrumentality.

Five-factor model¹¹ combines Task Mastery and Self-rated Task Performance.

Five-factor model¹² combines Task Mastery and Manager-rated Task Performance.

Five-factor model¹³ combines Occupational Instrumentality and Self-rated Task Performance.

Five-factor model¹⁴ combines Occupational Instrumentality and Manager-rated Task Performance.

** $p < .01$.

significantly correlated with self-rated task performance ($r = -.30, p < .001$). However, the correlation between relative deprivation and manager-rated task performance was non-significant ($r = -.11, p = .118$). As in Study 1, we first sought to determine the discriminant validity of study variables by running CFAs using MPlus (version 7). As shown in Table 4, the goodness-of-fit indices showed that, when the study variables were included as separate latent factors in a six-factor model, a better model fit was found compared to any model that pooled these latent factors into fewer factors.

Hypothesis testing

As in Study 1, our analyses involved two main steps. We first ran a mediation model examining whether the association between POQ and task performance was mediated by

relative deprivation and task mastery. In step 2, we tested a moderated mediation model (Hayes & Preacher, 2010) in which the relationship between POQ and relative deprivation was moderated by occupational instrumentality. Before creating this interaction term, the scales for both POQ and occupational instrumentality were mean-centred.

As in Study 1, we used the PROCESS macro (Model 4 and Model 7). Hypothesis 1 predicted a significant indirect effect between POQ and task performance via relative deprivation. As displayed in Table 3, mixed support was found for this hypothesis. Specifically, a significant indirect effect of $-.03$ was found between POQ and self-rated task performance via relative deprivation (95% CI: LL = $-.057$, UL = $-.007$). Conversely, relative deprivation had a non-significant association with manager-rated task performance ($\beta = -.03$, $SE = .04$, $p = .473$) and a non-significant indirect effect was found with 95% CI that included zero (LL = $-.037$, UL = $.015$).

Consistent with Study 1, support was found for Hypothesis 2, which predicted that task mastery would mediate the relationship between POQ and task performance. We found a significant positive association between POQ and task mastery ($\beta = .15$, $SE = .06$, $p = .016$) and between task mastery and both self-rated ($\beta = .51$, $SE = .05$, $p < .001$) and manager-rated task performance ($\beta = .25$, $SE = .05$, $p < .001$). A significant indirect effect of $.04$ was found (95% CI: LL = $.001$, UL = $.074$) for manager-rated performance. Similarly, the indirect relationship between POQ and self-rated performance ($.08$) was also significant (95% CI: LL = $.002$, UL = $.148$).

In support of Hypothesis 3, a significant interaction effect was found between POQ and occupational instrumentality on relative deprivation ($\beta = -.36$, $SE = .07$, $p < .001$). This interaction effect is shown in Figure 2. Evidence of moderated mediation was found for self-rated performance only. Specifically, significant mediation was only found at lower values of occupational instrumentality and not at higher values of occupational instrumentality. This moderated mediation was significant, as indicated by the index of moderated mediation of $.04$ (95% CI: LL = $.014$, UL = $.068$). For manager-rated performance, a non-significant indirect effect was evident at both higher and lower values of occupational instrumentality. The contrast of $.01$ between these indirect effects was also non-significant (95% CI: LL = $-.024$, UL = $.049$), as was the index of moderated mediation (95% CI: LL = $-.021$, UL = $.043$). Thus, no support was found for Hypothesis 3 for manager-rated performance.

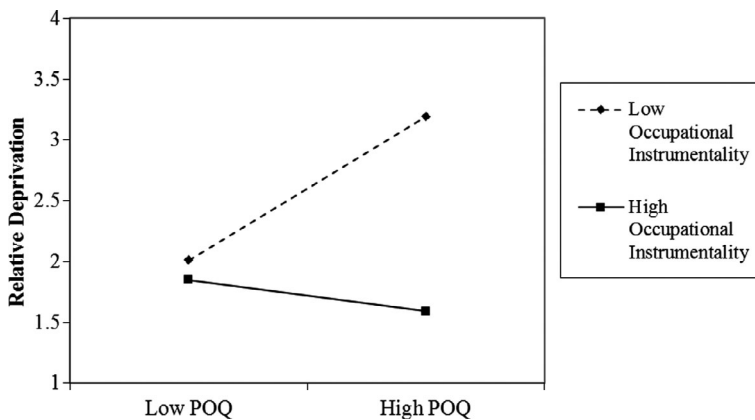


Figure 2. Occupational instrumentality as a moderator of the relationship between POQ and relative deprivation (Study 2).

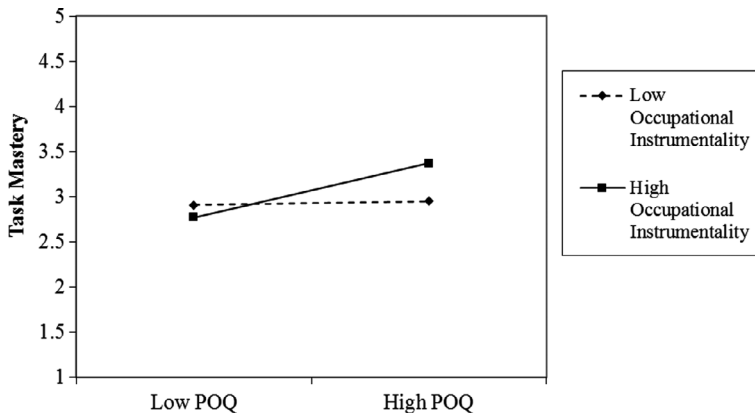


Figure 3. Occupational instrumentality as a moderator of the relationship between POQ and task mastery (Study 2).

A significant interaction effect was found between POQ and occupational instrumentality on task mastery ($\beta = .14$, $SE = .07$, $p = .042$). This interaction effect is shown in Figure 3. However, a non-significant index of moderated mediation was found for both self-rated (95% CI: LL = $-.049$, UL = $.139$) and manager-rated (95% CI: LL = $-.024$, UL = $.071$) task performance. Thus, no support was found for Hypothesis 4.

GENERAL DISCUSSION

In the current research, we sought to address two principal aims. First, we examined two opposing mechanisms to understand the effects of POQ on task performance. Second, we investigated the role that a contextual factor, occupational instrumentality, played in mitigating the negative effects of POQ on task performance via relative deprivation, and accentuating the positive effects via task mastery. Our results, displayed in Figures 4 and 5, provided mixed support for our hypotheses. Across both studies, as well as in our supplementary study (see Appendix S1), we found evidence that POQ is positively associated with followers' perceptions of both task mastery and relative deprivation (see Figure 4). Task mastery and relative deprivation represent variables that predict follower

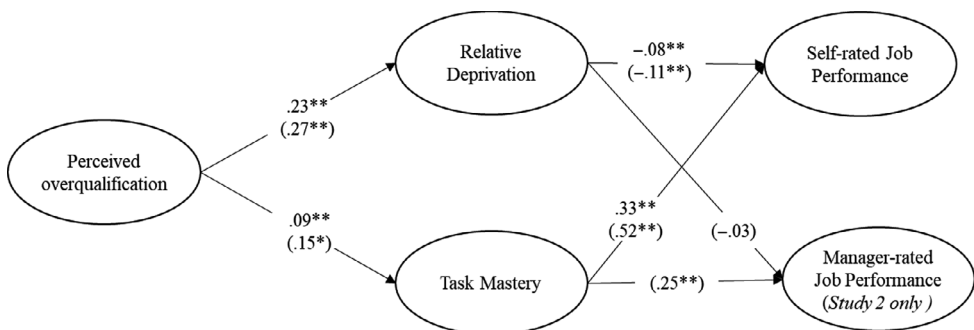


Figure 4. Mediation results for Study 1 and Study 2. $p < .05$, $**p < .01$. Study 1 results are presented outside the parentheses, and Study 2 results are presented inside the parentheses.

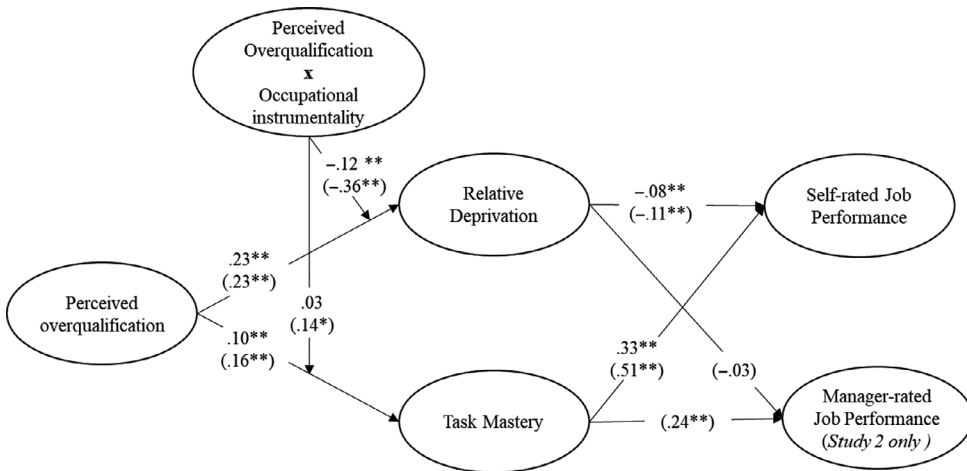


Figure 5. Moderated mediation results for Study 1 and Study 2. $p < .05$, $^{**}p < .01$. Study 1 results are presented outside the parentheses, and Study 2 results are presented inside the parentheses.

performance in opposing directions (Chen *et al.*, 2000; Dai *et al.*, 2016). Thus, the fact that POQ predicts both may help to explain why Harari *et al.* (2017) meta-analysis found a non-significant direct relationship between POQ and task performance. In both our studies, we also found consistent evidence for a positive indirect effect between POQ and performance via perceptions of task mastery (see Figure 4). This indirect relationship was observed for both self-rated (Studies 1 and 2) and manager-rated performance (Study 2). Another consistency across both studies was that follower perceptions of occupational instrumentality significantly mitigated the positive relationship between POQ and relative deprivation (see Figure 5). Furthermore, higher levels of occupational instrumentality significantly mitigated the indirect relationship found between POQ and self-rated performance via relative deprivation (Studies 1 and 2).

As well as the consistent findings highlighted above, some of our findings failed to support our hypotheses. First, while relative deprivation predicted self-rated performance in both studies, it did not predict manager-rated performance in Study 2. Second, occupational instrumentality accentuated the relationship between POQ and task mastery in Study 2 only, and we found no support for moderated mediation via task mastery in either study. Taken together, the findings from our studies have important implications for theory, to which we now turn.

Theoretical implications

Our research aimed to increase understanding of when and how POQ is associated with employees' task performance by exploring competing mechanisms that might explain the POQ and task performance link. Our premise is that the positive indirect effects of POQ on performance through task mastery and negative indirect effects through relative deprivation may coexist, which would explain some of the null findings in the literature (e.g., Harari *et al.*, 2017). Thus, we answer calls in the literature for theory-based mediators and moderators, unpacking the reasons why overqualified employees engage in certain work behaviours (e.g., Liu *et al.*, 2015). It is interesting to note that in both our studies we found a non-significant correlation between POQ and task performance, yet found

evidence for several indirect effects. This underscores the importance of considering underlying mechanisms in order to uncover the true impact of POQ on task performance.

In our introduction, we highlighted two alternative and opposing theoretical perspectives to explain the relationship between POQ and task performance (Erdogan *et al.*, 2017; Harari *et al.*, 2017): an *ability-based* and a *motivation-based* explanation. Task mastery represents an ability-based mediator that focuses on positive beliefs about one's competence to perform job tasks. Previous research has found task-based confidence to have a strong association with task performance (e.g., Chen *et al.*, 2000). Our findings found support for the ability-based mechanism as we found a positive indirect effect between POQ and task performance for both self-rated and manager-rated performance via task mastery. Employees who feel overqualified appear to have greater self-belief in their abilities to master their core job duties and react to this mastery experience by upwardly regulating their performance efforts. The positive indirect effect through task mastery also corresponds with previous empirical research that has shown that POQ prompts more positive self-evaluations regarding one's job capabilities. For instance, Zhang *et al.* (2016) showed that employees who saw themselves as overqualified tended to report higher self-efficacy to complete a broad range of job tasks, which in turn led them to display more proactive job behaviours. Thus, together with our finding on the positive indirect effect through task mastery, a body of evidence is beginning to reveal that self-agency and self-regulation processes are central to realizing the benefits of overqualified employees. To date, most studies on POQ have relied on relative deprivation theory as the dominant guiding framework.

At the same time, in line with previous research (e.g., Erdogan *et al.*, 2018) and the motivation-based explanation, we also found that POQ was significantly associated with feelings of relative deprivation which in turn was related to lower self-ratings of task performance. Our findings suggest that competing mechanisms (i.e., motivation-based and ability-based) may operate in tandem. On the one hand, those high in POQ are likely to have the ability and confidence to complete their job-related tasks to a high standard, while on the other hand, these individuals are likely to also feel deprived and be demotivated as a result. This is an important finding as it suggests that POQ represents a double-edged sword. Employing overqualified people has the potential to benefit performance, but equally may lead to demotivation.

Interestingly, for self-rated performance, POQ showed significant indirect effects through both relative deprivation and task mastery. However, for manager-rated performance, only task mastery showed an indirect effect, while relative deprivation was not a significant mediator (see Figure 4). Hence, the feeling of relative deprivation associated with POQ appears to lead to employees feeling that they are underperforming (self-rated task performance), even if their managers do not perceive the same (manager-rated task performance). This is somewhat consistent with previous findings suggesting that POQ may be more positively associated with manager-rated overall job performance compared to self-rated overall job performance (Harari *et al.*, 2017). It is not uncommon for studies to find discrepancies between self- and manager assessments of performance (e.g., Heidemeier & Moser, 2009). In Study 2, we found a relatively small positive correlation between self-rated and manager-rated task performance ($r = .27$). It may be the case that the difference between these two measurements exists because self-ratings may be inflated by overconfidence, self-enhancement bias, or social desirability (Xia *et al.*, 2018), or because managers have insufficient information, or an inability to accurately assess their employees' task performance. It is also the case that self-rating and manager ratings of task performance are based on different information. Managers, in theory, based

their ratings on the observable output of their employees, for example, whether they have met their targets. Employees themselves are more aware of the effort they have put into their job and whether they could have done a better job. It can be speculated that overqualified employees will be aware of a lack of motivation (i.e., based on feelings of relative deprivation), but may conceal these negative feelings from their manager. Thus, manager-rated performance might be driven by task mastery but not relative deprivation as managers are more likely to be cognizant of employees' confidence and ability to accomplish their job tasks. Overall, the finding that the mechanisms through which POQ impacts performance differ depending on the rating source underline the complexity of the effects of POQ on workplace outcomes.

Taken together, our studies extend the nomological network associated with POQ. Researchers studying POQ have predominantly examined its relationship with job attitudes, with a relative paucity of research on the performance of employees who perceive they are overqualified for their job. Additionally, few studies to date have examined mediators of POQ. Indeed, the examination of the mechanisms through which POQ affects employee outcomes represents an important gap in the extant literature (Erdogan *et al.*, 2018). For instance, despite being widely posited as the underlying explanation for the relationship between POQ and outcomes, to date, only one previous study has examined relative deprivation as a mediator of POQ (Erdogan *et al.*, 2018). Our studies are the first to propose and test the dual-process mechanism, explaining the effect of POQ on task performance, via the effect of relative deprivation and task mastery.

Finally, we extend the understanding of POQ through the examination of a boundary condition – occupational instrumentality – and add to our knowledge of when POQ is more likely to lead to positive rather than negative effects on task performance. This understanding is especially important given the inconsistent relationship between POQ and task performance (e.g., Harari *et al.*, 2017). As well as contributing to the literature related to POQ, the current research also has implications for our understanding of occupational instrumentality. As mentioned in the introduction, little is known of the impact of occupational instrumentality in the workplace beyond its relationship to organizational identification (Ashforth *et al.*, 2013). We found evidence that occupational instrumentality represents an important variable in explaining why employees who perceive they are overqualified for their current job will not always feel deprived. Further, in Study 2 the results showed that occupational instrumentality also accentuated the relationship between POQ and task mastery. As predicted, occupational instrumentality may help to increase task mastery by reducing the negative evaluations associated with POQ and thus facilitating the motivation to master one's environment. Overall, our study contributes to the literature on occupational instrumentality by showing how it can dampen the role of employee reactions to undesirable aspects of their current jobs by highlighting its role for their future goals. We hope that our findings encourage further research on the topic.

It is interesting to note that in Study 2, we found evidence of a significant negative direct effect of POQ on self-rated task performance: a direct relationship that was not evident in Study 1. This relationship emerges after controlling for relative deprivation and task mastery; the bivariate correlations of POQ and self-rated performance across the two studies are similar ($r = -.05$ and $-.09$ respectively). There may be sample-level differences that could explain this finding. One potential explanation is that Study 2 was conducted on a younger sample, who may be at a different career stage. The average age of employees was 40.42 in Study 1 and 30.12 in Study 2. In the latter sample, feelings of

overqualification may be more strongly associated with self-rated performance, controlling for relative deprivation and task mastery, because this sample may consist of individuals who place greater value on their education and their ability to utilize their education at work. Additional research is needed to shed light on this unexpected finding.

Practical implications

The results of our studies have potential implications for the selection and management of employees who may feel overqualified for their jobs. At any given point, organizations may need to make decisions about whether to hire someone who may feel overqualified for the job. More importantly, feelings of overqualification may emerge after organizational entry, in response to job demands not increasing to keep pace with the employee's increasing levels of skills and experience (Erdogan *et al.*, 2011b). Our research shows that employee feelings of overqualification carry risks for their task performance as well as potential benefits. In fact, our two studies are more supportive of benefits of POQ relative to its costs: The positive indirect effects on task performance were consistent across the two studies, whereas the negative indirect effects on performance via relative deprivation only emerged for self-rated, and not manager-rated performance.

Further, our results show the importance of occupational instrumentality for alleviating the costs of POQ. Given that occupational instrumentality consistently weakened the negative effects of POQ on relative deprivation across the two studies, organizations should make efforts to highlight the long-term benefits of their jobs for career advancement. This could be done through using role models who perhaps worked in the job and went on to achieve great things or through highlighting opportunities for job promotion and career development within the organization. Recruitment and socialization efforts may include emphasis on career planning and how to develop experiences that will prepare employees for future roles. To the degree to which it is possible and realistic, highlighting the nature of one's current job as a stepping stone may help employees reframe their relationship with their jobs where they feel overqualified and lower the likelihood that they will experience a sense of relative deprivation in reaction to their feelings of overqualification.

Potential limitations and future research directions

The current research has both strengths and limitations. The inclusion of two studies (as well as a third supplementary study) afforded us more confidence in generalizability of our findings. In Study 2, we collected our performance data from managers in order to reduce the potential for common method bias. However, our study design did not allow for strong tests of the causal predictions made. Only randomized experiments are truly able to demonstrate the causality of any given relationship. Furthermore, our performance data relied on either self-report (Study 1) or manager ratings (Study 2), both of which are subject to bias. Objective performance measures (e.g., sales or productivity) are less susceptible to such bias (e.g., Martin, Guillaume, Thomas, Lee, & Epitropaki, 2016), but we were unable to obtain such data in either of our samples.

In our studies, we included age and gender as demographic control variables. It would have also been prudent to include level of education as a further control variable, given our focus on POQ. However, previous research has found a relatively small association between education level and POQ ($p = .08$ in Harari *et al.*'s, 2017 meta-analysis).

Education also has relatively small associations with either self-rated ($p = .06$) or manager-rated ($p = .09$) task performance (Ng & Feldman, 2009).

Other avenues of future research can help further our understanding of both POQ and occupational instrumentality. Our findings suggest that there are competing mechanisms that can explain the effects of POQ. Thus, a direction for future research is to explore further boundary conditions that might either strengthen or weaken the indirect effect of POQ via either relative deprivation or task mastery. For instance, certain personality characteristics, such as conscientiousness, might accentuate the relationship between POQ and task mastery. Other characteristics, such as psychological entitlement, might accentuate the relationship between POQ and relative deprivation. It would also make sense to explore other mediators that would fit in the category of motivation and ability as well as other potential categories of mediators. For example, in addition to ability-based and motivation-based categories, POQ may influence task performance via affective mechanisms such as feelings of anger or frustration (e.g., Liu *et al.*, 2015). Future research could explore affective mechanisms in conjunction with ability-based and/or motivation-based mechanisms. Further, investigating other outcomes such as turnover behaviour and exploring the degree to which the dual mediators that we identify explain the relation between POQ and other outcomes is a potential research direction.

Conclusion

Our study demonstrated that employees may react to POQ by experiencing a sense of deprivation and a feeling that they have mastered their tasks, and these cognitions have competing and contradictory effects on their task performance. Therefore, understanding the nature of the relationship between POQ and task performance necessitates understanding these contradictory experiences and how employees reconcile these perceptions. Our results also showed that regarding one's job as a stepping stone results in different reactions to POQ. Our studies highlight the role of employees' career expectations and the link they see between their current jobs and future prospects in explaining how employees react to their feelings of overqualification in their current jobs.

Author contributions

Allan Lee, Ph.D. (Conceptualization; Data curation; Formal analysis; Methodology; Writing – original draft) Berrin Erdogan (Conceptualization; Writing – original draft; Writing – review & editing) Amy Tian (Data curation; Writing – review & editing) Sara Willis (Writing – review & editing) Jie Cao (Data curation; Writing – review & editing).

Conflicts of interest

All authors declare no conflict of interest.

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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Supporting Information

The following supporting information may be found in the online edition of the article:

Appendix S1. Supplementary study.